

FIG. 1

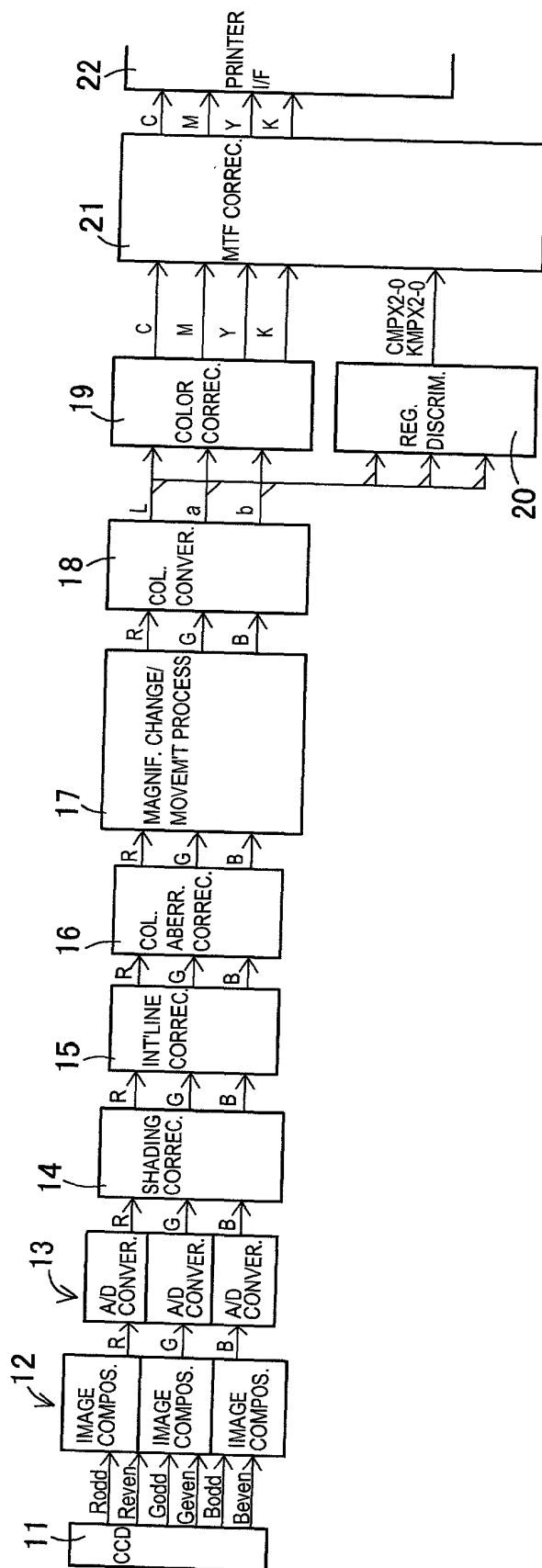


FIG. 2

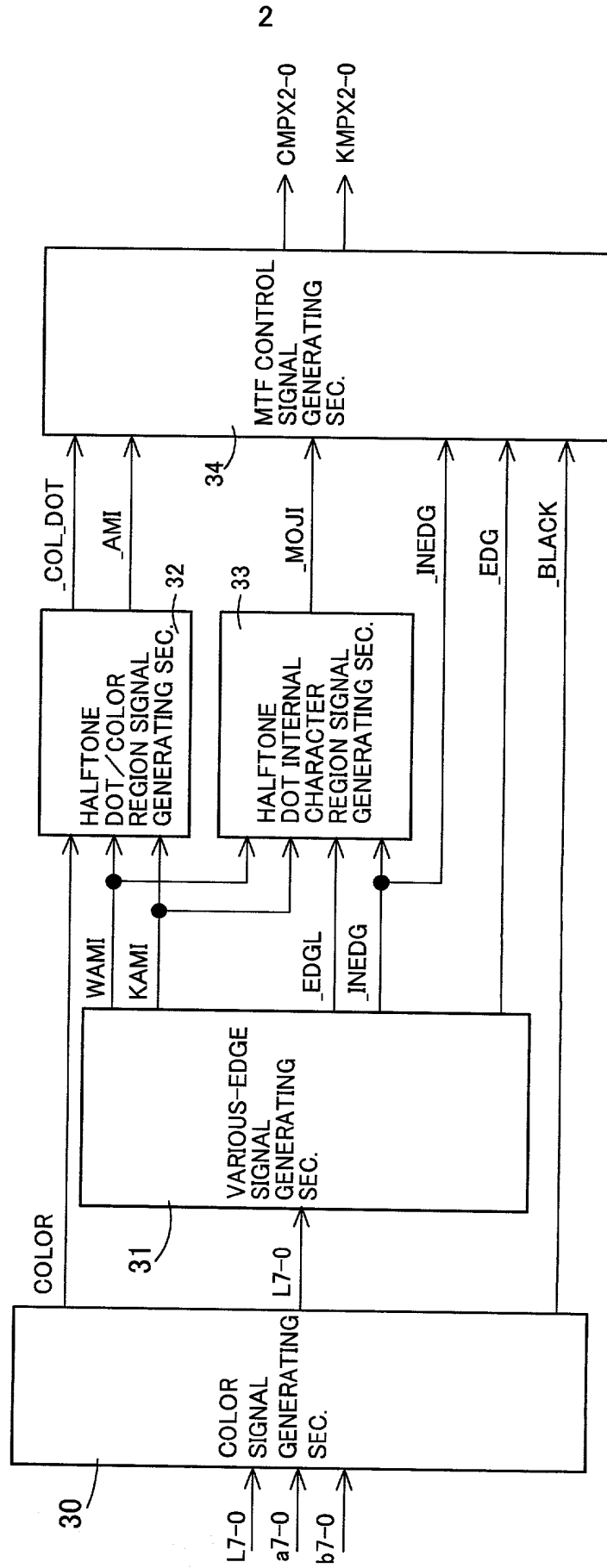


FIG. 3

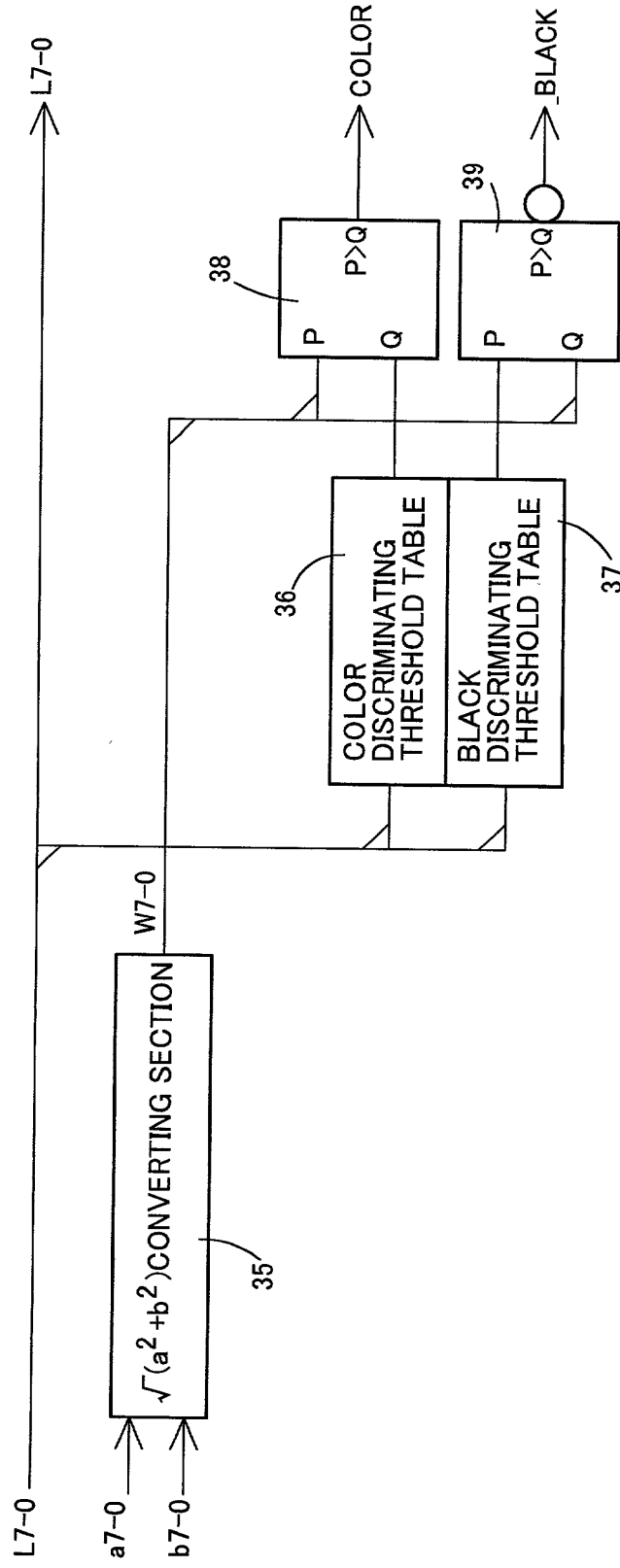


FIG. 4

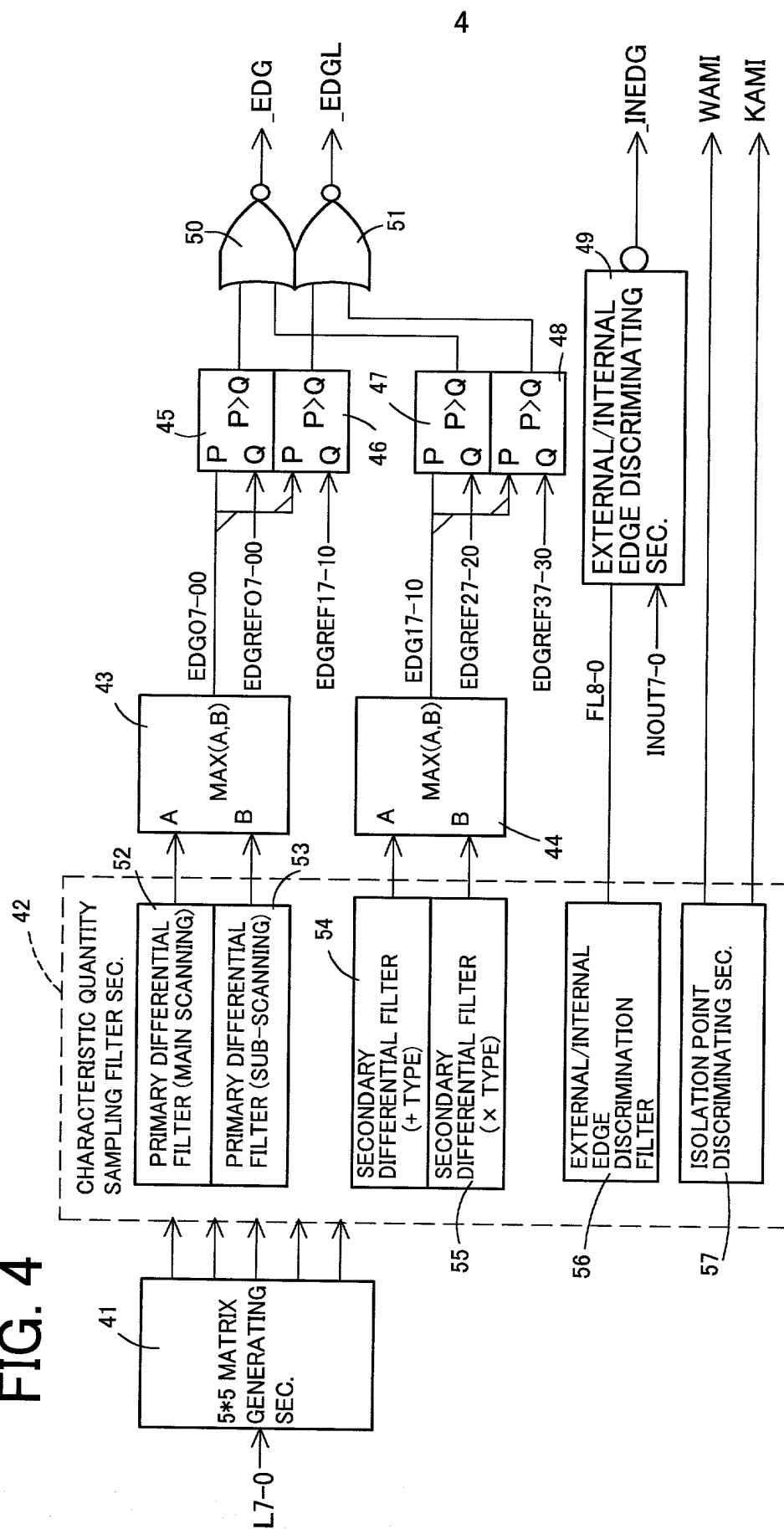


FIG. 5

PRIMARY DIFFERENTIAL FILTER
(MAIN SCANNING DIRECTION)

16	0	0	0	-16
32	32	0	-32	-32
32	64	0	-64	-32
32	32	0	-32	-32
16	0	0	0	-16

FIG. 6

PRIMARY DIFFERENTIAL FILTER
(SUB-SCANNING DIRECTION)

16	32	32	32	16
0	32	64	32	0
0	0	0	0	0
0	-32	-64	-32	0
-16	-32	-32	-32	-16

FIG. 7

SECONDARY DIFFERENTIAL FILTER
(+ TYPE)

0	0	1	0	0
0	0	0	0	0
1	0	-4	0	1
0	0	0	0	0
0	0	1	0	0

FIG. 8

SECONDARY DIFFERENTIAL FILTER
(\times TYPE)

1	0	0	0	1
0	0	0	0	0
0	0	-4	0	0
0	0	0	0	0
1	0	0	0	1

FIG. 9

EXTERNAL/INTERNAL EDGE
DISCRIMINATING FILTER

1	0	1	0	1
0	0	0	0	0
1	0	-8	0	1
0	0	0	0	0
1	0	1	0	1

FIG. 10

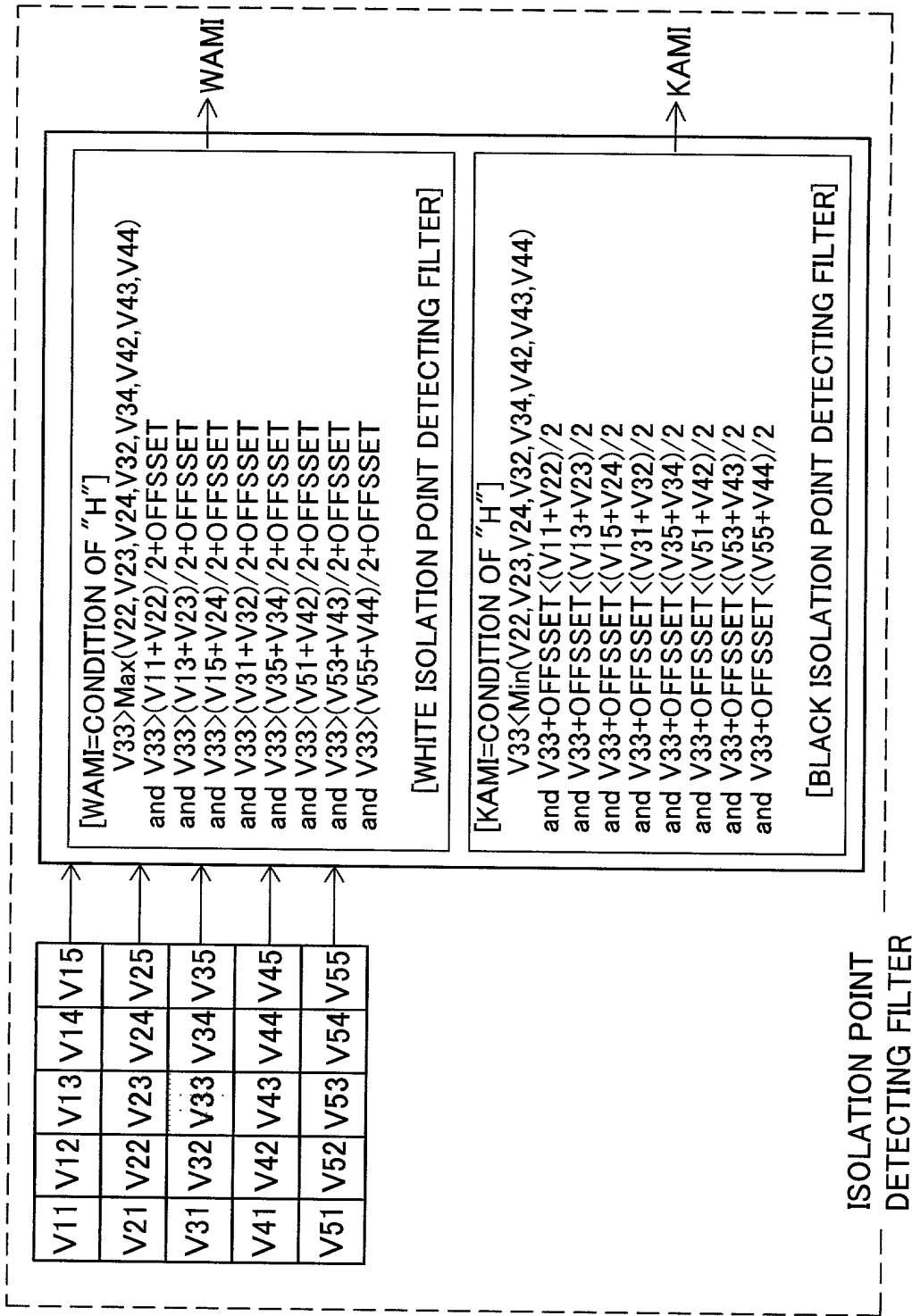


FIG. 11

FIG. 11

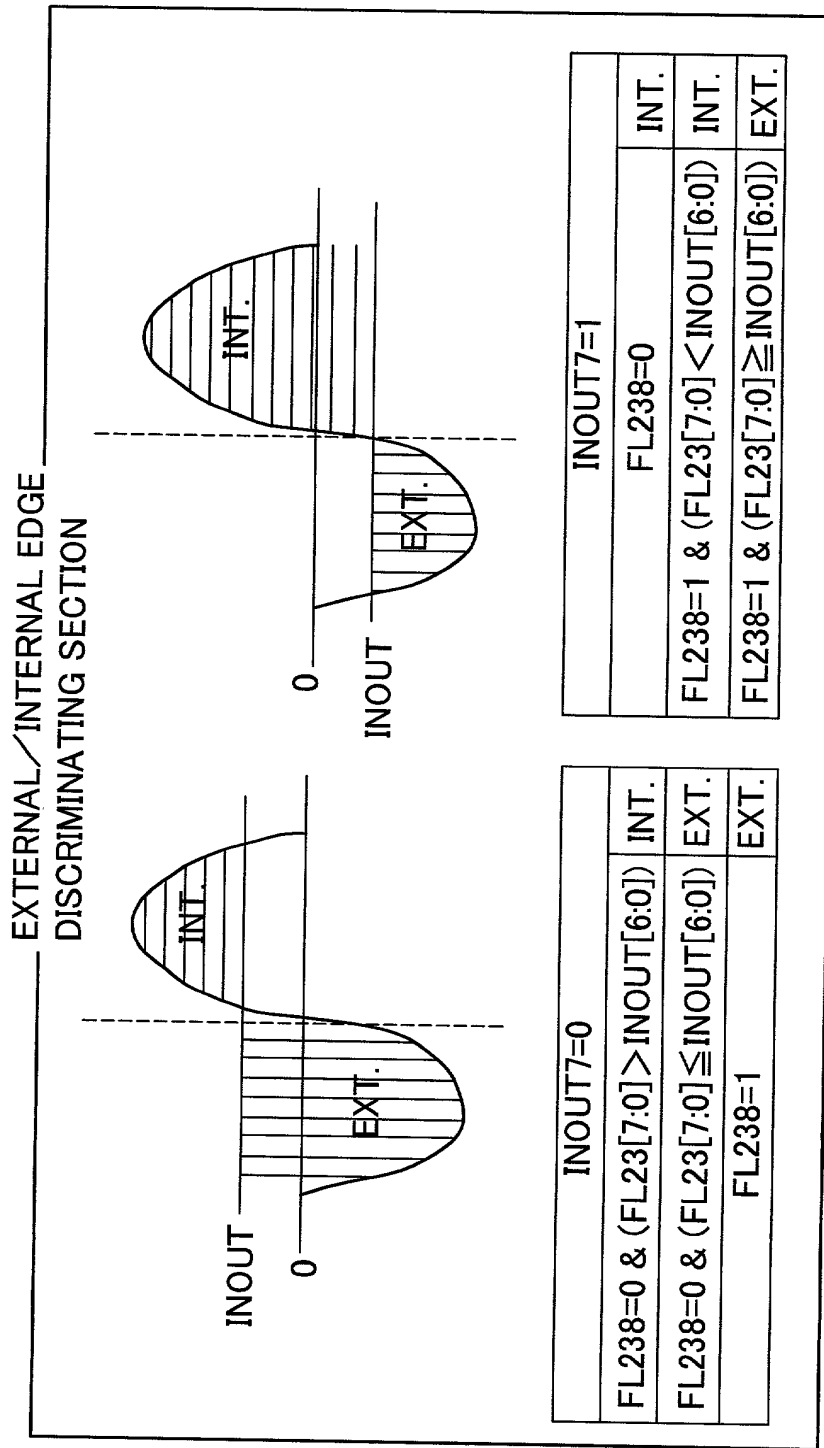
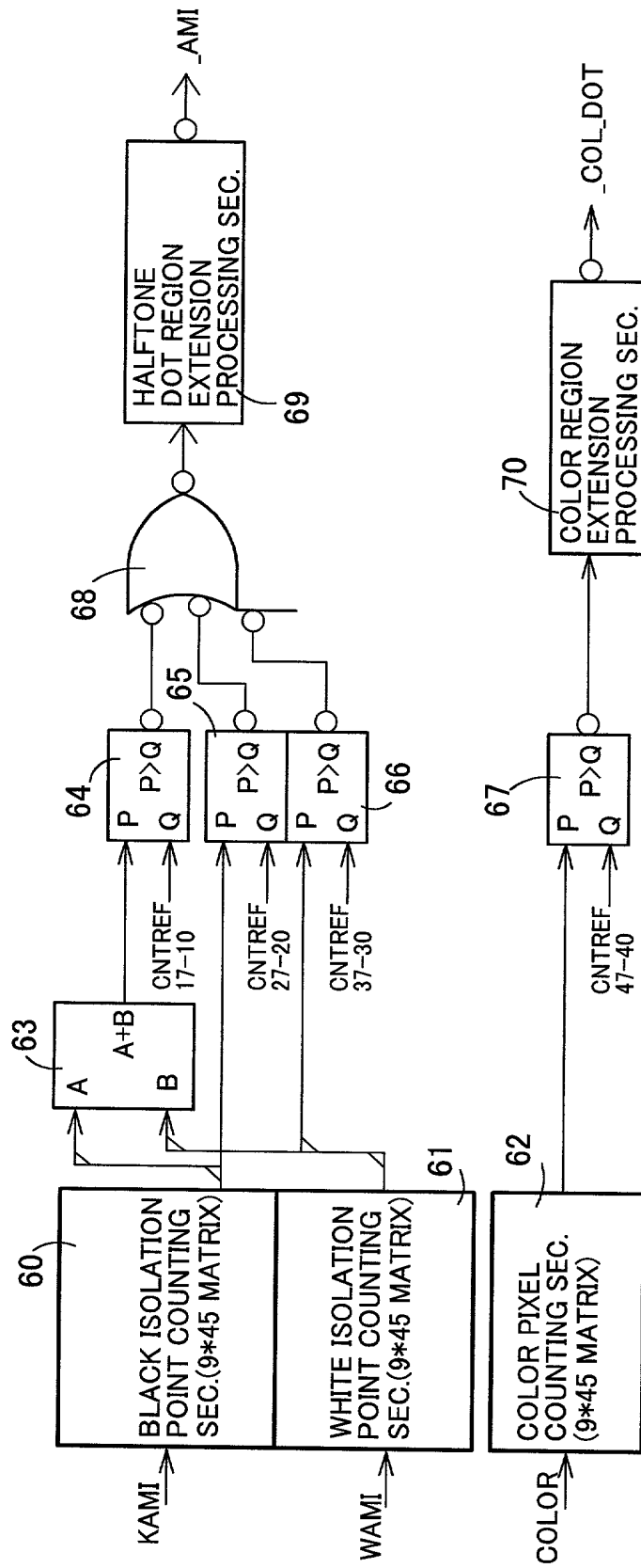


FIG. 12



HALFTONE DOT REGION EXTENSION PROCESSING SECTION

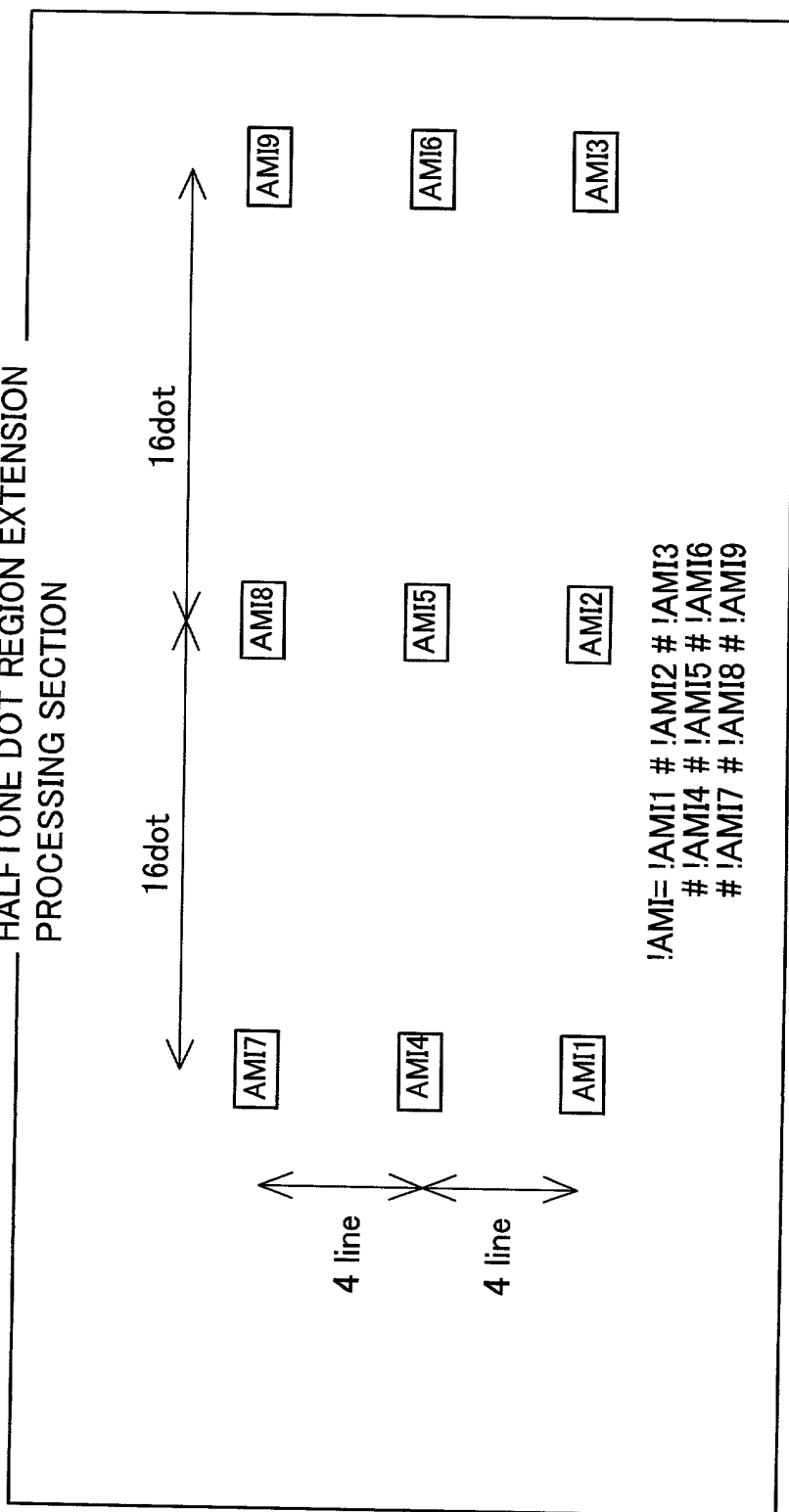


FIG. 14

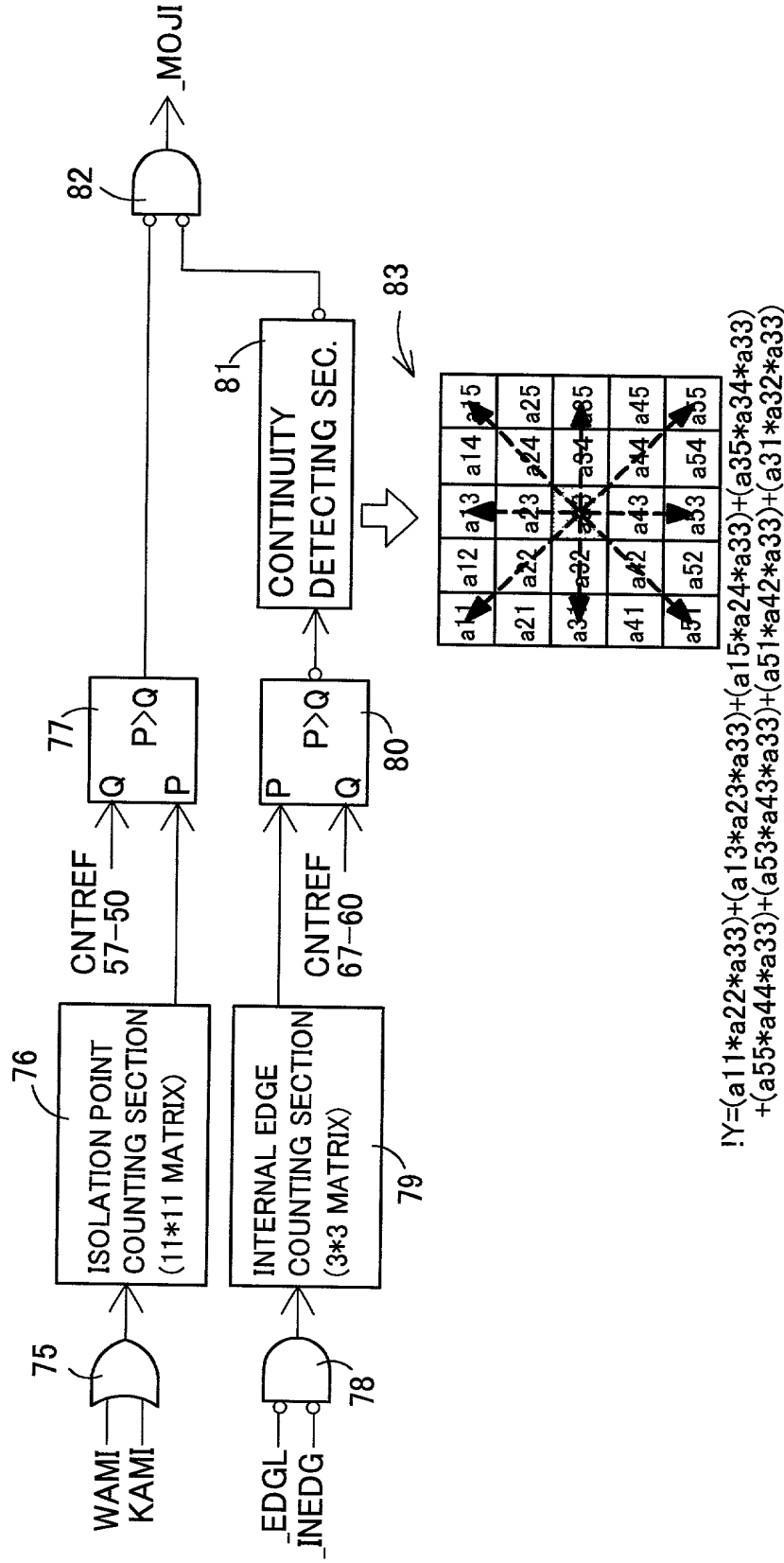
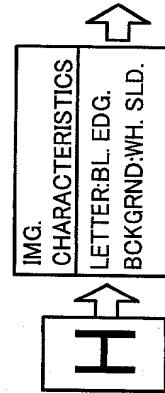
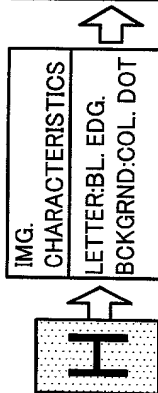


FIG. 15



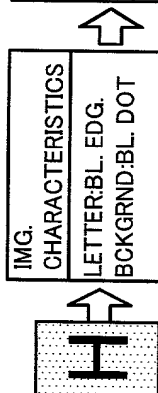
IMG. CHARACTERISTICS	
LETTER:BL. EDG.	
BCKGRND:WH. SLD.	

DISCRIMINATION SIGNAL	
IMG.AREA	
EXT. EDG.	
INT. EDG.	
SLD.	



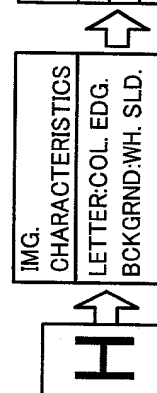
IMG. CHARACTERISTICS	
LETTER:BL. EDG.	
BCKGRND:COL. DOT	

DISCRIMINATION SIGNAL	
IMG.AREA	
EXT. EDG.	
INT. EDG.	
SLD.	



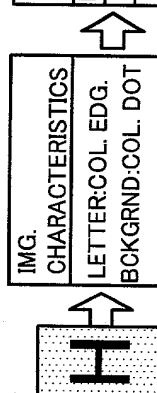
IMG. CHARACTERISTICS	
LETTER:BL. EDG.	
BCKGRND:BL. DOT	

DISCRIMINATION SIGNAL	
IMG.AREA	
EXT. EDG.	
INT. EDG.	
SLD.	



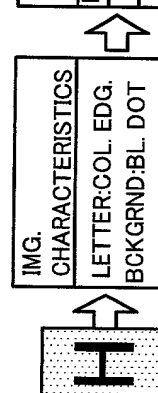
IMG. CHARACTERISTICS	
LETTER:COL. EDG.	
BCKGRND:WH. SLD.	

DISCRIMINATION SIGNAL	
IMG.AREA	
EXT. EDG.	
INT. EDG.	
SLD.	



IMG. CHARACTERISTICS	
LETTER:COL. EDG.	
BCKGRND:COL. DOT	

DISCRIMINATION SIGNAL	
IMG.AREA	
EXT. EDG.	
INT. EDG.	
SLD.	



IMG. CHARACTERISTICS	
LETTER:COL. EDG.	
BCKGRND:BL. DOT	

DISCRIMINATION SIGNAL	
IMG.AREA	
EXT. EDG.	
INT. EDG.	
SLD.	

FIG. 16

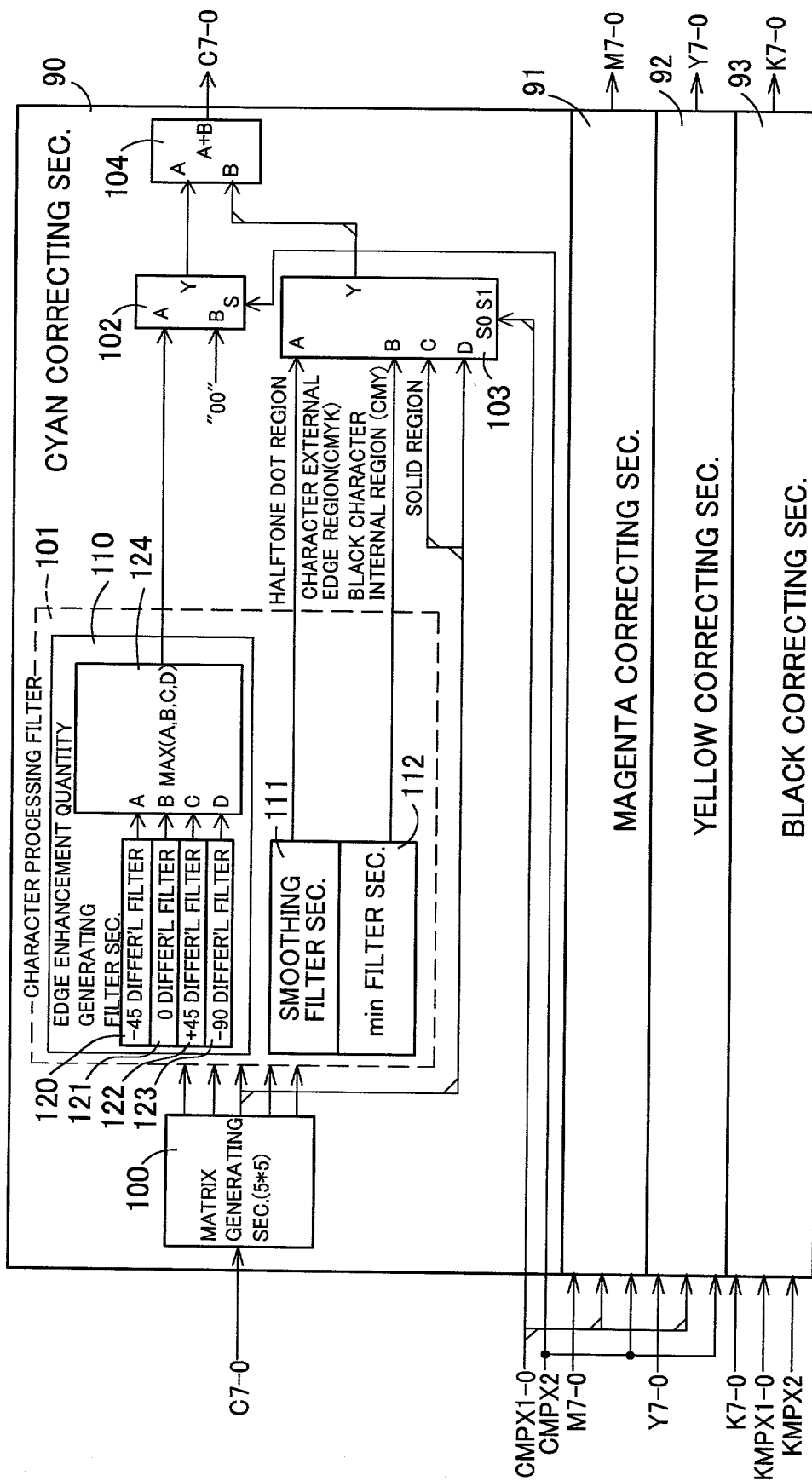


FIG. 17

-45 DEGREE DIFFERENTIAL FILTER

1	0	0	0	0
0	0	0	0	0
0	0	-2	0	0
0	0	0	0	0
0	0	0	0	1

FIG. 18

0 DEGREE DIFFERENTIAL FILTER

0	0	0	0	0
0	0	0	0	0
1	0	-2	0	1
0	0	0	0	0
0	0	0	0	0

FIG. 19

+45 DEGREE DIFFERENTIAL FILTER

0	0	0	0	1
0	0	0	0	0
0	0	-2	0	0
0	0	0	0	0
1	0	0	0	0

FIG. 20

+90 DEGREE DIFFERENTIAL FILTER

0	0	1	0	0
0	0	0	0	0
0	0	-2	0	0
0	0	0	0	0
0	0	1	0	0

FIG. 21

SMOOTHING FILTER

1	2	2	2	1
2	4	4	4	2
2	4	4	4	2
2	4	4	4	2
1	2	2	2	1

FIG. 22

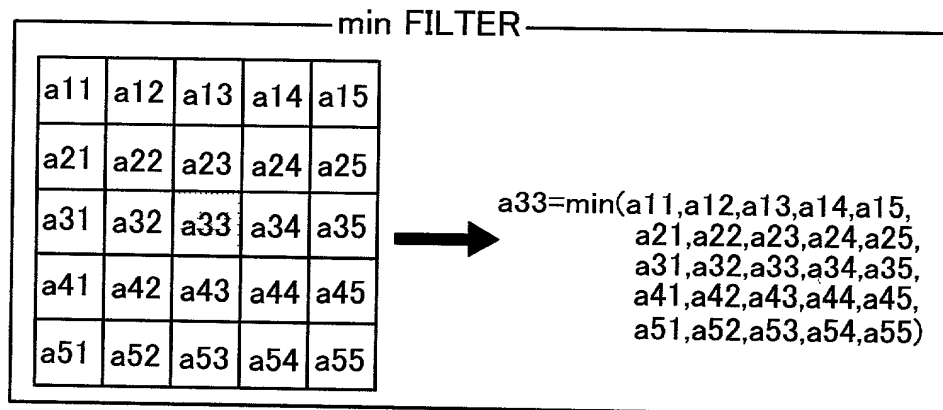


FIG. 23

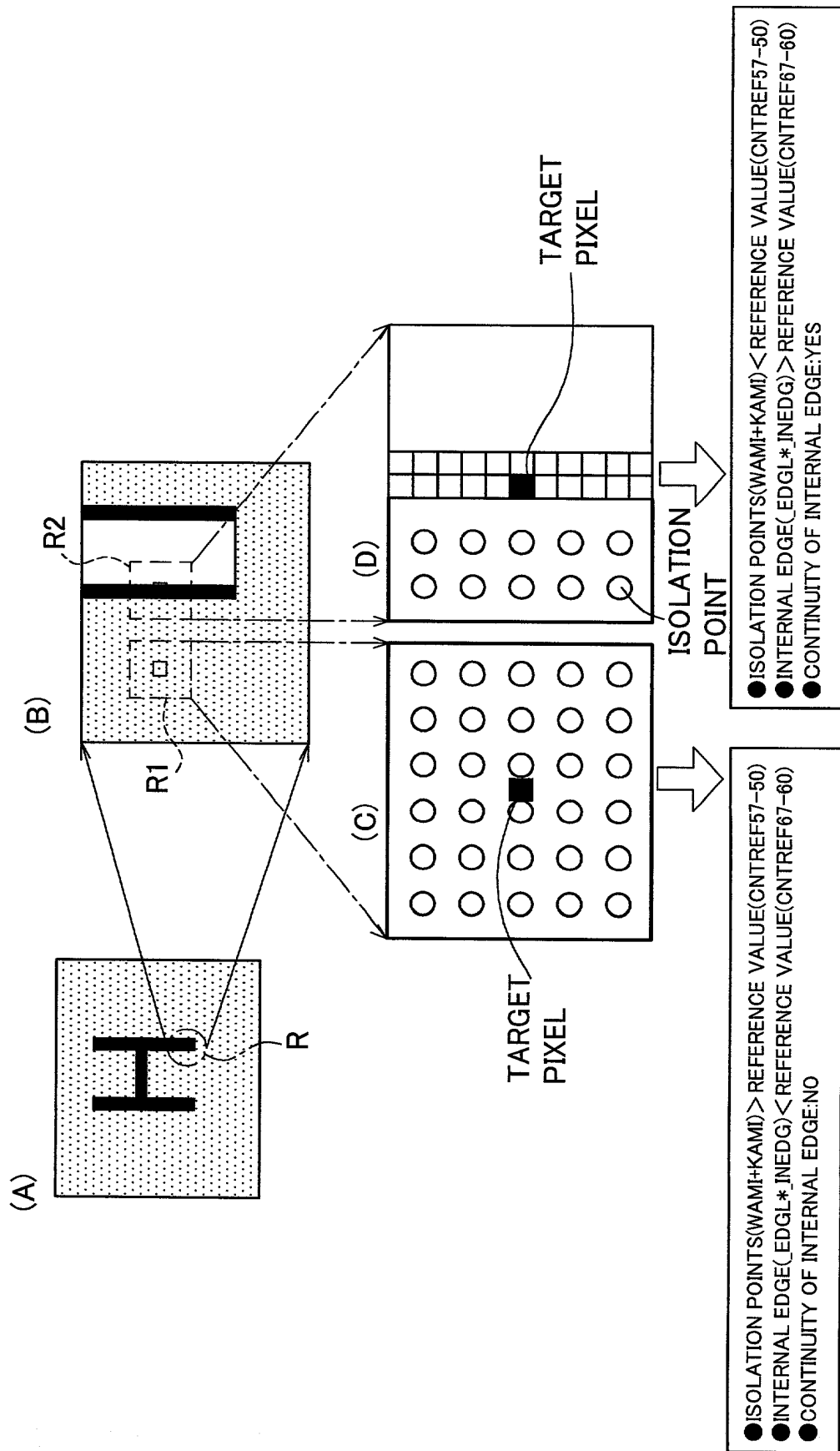
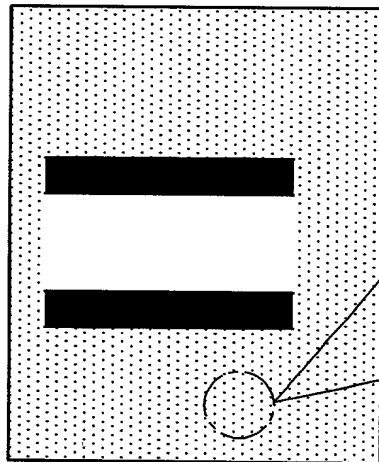
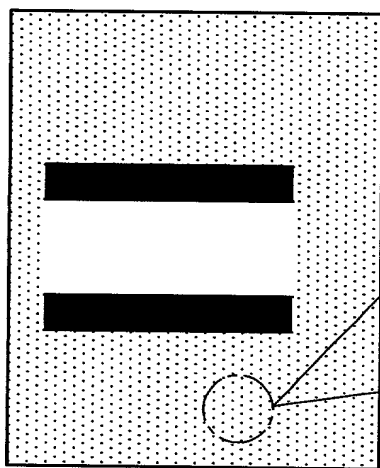


FIG. 24A

FIG. 24B

BLACK HALFTONE DOT INTERNAL
BLACK CHARACTER IMAGE

COLOR HALFTONE DOT INTERNAL
BLACK CHARACTER IMAGE



(ERRONEOUSLY DISCRIMINATED AS
BLACK CHARACTER)
CMY : MIN PROCESSING
K:EDGE ENHANCEMENT PROCESSING

(DISCRIMINATED AS BLACK
HALFTONE DOTS)
CMY : SMOOTHING PROCESSING
K:SMOOTHING PROCESSING

(ERRONEOUSLY DISCRIMINATED
AS COLOR CHARACTER)
CMY : EDGE ENHANCEMENT
PROCESSING
K:EDGE ENHANCEMENT
PROCESSING

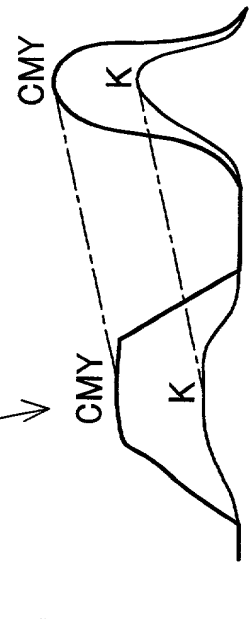
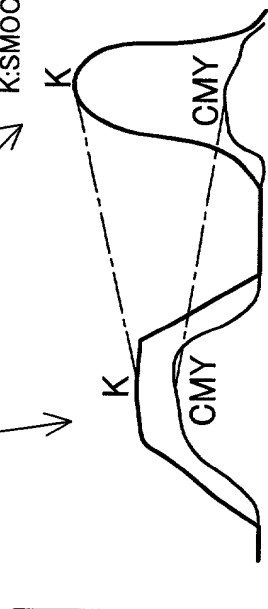


FIG. 25

